

LISTING OF THE CLAIMS

A detailed listing of claims is presented below. Please amend currently amended claims as indicated below including substituting clean versions for pending claims with the same number. In addition, clean text versions of pending claims not being currently amended that are under examination are also presented. It is understood that any claim presented in a clean version below has not been changed relative to the immediate prior version.

1. (Currently Amended) In a communication network including a subnetwork coupled to a backbone network, said subnetwork including an access point (AP) and a plurality of clients associated with said AP, a method of exchanging network information, comprising the steps of:

a) at said AP, automatically monitoring network status of said AP on a continual basis over said communication network, said AP coupled to said backbone network;

b) automatically and dynamically generating network status information for said AP based upon step a); and

c) from said AP, automatically sending said network status information for said AP without pre-notification to each of said plurality of clients when there is a change in said network status of said AP, said plurality of clients coupled wirelessly to said AP.

2. (Original) The method as described in Claim 1, wherein said change of network status in step c) includes a failed communications link between said AP and said backbone network.

3. (Original) The method as described in Claim 1, wherein said change of network status in step c) includes a change of IP address for an electronic device taken essentially from the group consisting essentially of: said AP, a mask associated with said subnetwork, and a gateway associated with said subnetwork.

4. (Original) The method as described in Claim 1, comprising the further step of:

d) automatically sending said network status information for said AP to a first client of said plurality of clients when said first client is newly associating with said AP.

5. (Original) The method as described in Claim 4, wherein a smart agent implements said steps a), b), c) and d), said smart agent located in said AP.

6. (Original) The method as described in Claim 4, wherein said first client has previously associated with a second AP, said first client having an IP address associated with a second subnetwork, said second subnetwork

including a second mask, a second gateway, and said second AP.

7. (Original) The method as described in Claim 4, wherein said first client, before associating with said AP, does not have any current association with any AP or any subnetwork, nor any IP address.

8. (Original) The method as described in Claim 4, wherein said access point, said plurality of stations, and said smart agent are substantially compliant with a version of the IEEE 802.11 communications protocol.

9. (Original) The method as described in Claim 4, wherein said steps c) and d) are implemented through a layer 2 communication protocol.

10. (Currently Amended) The method as described in Claim 1, wherein said network status information is taken from a group consisting essentially of:

AP Internet Protocol (IP) address;

AP IP address type;

subnet mask information

subnet IP address;

subnet gateway information;

subnet gateway IP address; and

AP link status to said backbone network.

11. (Currently Amended) In a communication network including a subnetwork coupled to a backbone network, said subnetwork including an access point (AP) and a plurality of clients associated with said AP, a method of exchanging network information, comprising the steps of:

a) at said AP, automatically monitoring network status of said AP on a continual basis over said communication network, said AP coupled to said backbone network;

b) automatically and dynamically generating network status information for said AP based upon step a); and

c) from said AP, automatically sending said network status information for said AP without pre-notification to each of said plurality of clients when there is a change in said network status of said AP, said plurality of clients coupled wirelessly to said AP; and

d) from said AP, automatically sending said network status information for said AP to a first client of said plurality of clients when said first client is newly associating with said AP.

12. (Original) The method as described in Claim 11, wherein a smart agent implements said steps a), b), c), and d), said smart agent located in said AP.

13. (Original) The method as described in Claim 12, wherein said access point, said plurality of stations, and a smart agent located in said AP that implements said steps a), b), c) and d) are substantially compliant with a version of the IEEE 802.11 communications protocol.

14. (Original) The method as described in Claim 11, wherein said change of network status in step c) includes a failed communications link between said AP and said backbone network.

15. (Original) The method as described in Claim 11, wherein said change of network status includes a change of IP address for an electronic device taken essentially from the group consisting essentially of: said AP, a mask associated with said subnetwork, and a gateway associated with said subnetwork.

16. (Original) The method as described in Claim 11, wherein said first client has previously associated with a second AP, said first client having an IP address associated with a second subnetwork, said second subnetwork including a second mask, a second gateway, and said second AP.

17. (Original) The method as described in Claim 11, wherein said first client, before associating with said AP,

does not have any current association with any AP or any subnetwork, nor any IP address.

18. (Original) The method as described in Claim 11, wherein said network status information is taken from a group consisting essentially of:

- AP Internet Protocol (IP) address;
- AP IP address type;
- subnet mask information
- subnet IP address;
- subnet gateway information;
- subnet gateway IP address; and
- AP link status to said backbone network.

19. (Original) The method as described in Claim 11, wherein said steps c) and d) are implemented through a layer 2 communication protocol.

20. (Currently Amended) A computer system comprising a processor, a memory unit, and a display screen wherein said memory contains instructions that when executed implement a method of exchanging network information, comprising steps of:

- a) at said AP, automatically monitoring network status of said AP on a continual basis over said communication network, said AP coupled to said backbone network;

b) automatically and dynamically generating network status information for said AP based upon step a); and

c) from said AP, automatically sending said network status information for said AP without pre-notification to each of said plurality of clients when there is a change in said network status of said AP, said plurality of clients coupled wirelessly to said AP.

21. (Original) The computer system as described in Claim 20, wherein said change of network status in step c) includes a failed communications link between said AP and said backbone network.

22. (Original) The computer system as described in Claim 20, wherein change of network status in step c) includes a change of IP address for an electronic device taken essentially from the group consisting essentially of: said AP, a mask associated with said subnetwork, and a gateway associated with said subnetwork.

23. (Original) The computer system as described in Claim 20, comprising the further step of:

d) automatically sending said network status information for said AP to a first client of said plurality of clients when said first client is newly associating with said AP.

24. (Original) The computer system as described in Claim 23, wherein a smart agent implements said steps a), b), c) and d), said smart agent located in said AP.

25. (Original) The computer system as described in Claim 23, wherein said first client has previously associated with a second AP, said first client having an IP address associated with a second subnetwork, said second subnetwork including a second mask, a second gateway, and said second AP

26. (Original) The computer system as described in Claim 23, wherein said first client, before associating with said AP, does not have any current association with any AP or any subnetwork, nor any IP address.

27. (Original) The computer system as described in Claim 23, wherein said access point, said plurality of stations, and said smart agent are substantially compliant with a version of the IEEE 802.11 communications protocol.

28. (Original) The computer system as described in Claim 23, wherein said steps c) and d) are implemented through a layer 2 communication protocol.

29. (Original) The computer system as described in Claim 20, wherein said network status information is taken from a group consisting essentially of:

- AP Internet Protocol (IP) address;
- AP IP address type;
- subnet mask information
- subnet IP address;
- subnet gateway information;
- subnet gateway IP address; and
- AP link status to said backbone network.